providing on a first region of a tool body of both types of cutting tools, which first region contains at least one cutting edge, a first hard material coating by means of a plasma vacuum coating process;

providing on a second region of the tool body of both types of cutting tools, which second region is adjacent said first region, a second hard material coating by means of said plasma vacuum coating process;

selecting as hard material for said first and second hard material coatings of both types of cutting tools, a material selected from the group consisting of: carbide, oxide, oxicarbide, nitride, nitrocarbide, oxinitride and nitro oxicarbide of at least two of the metal elements Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W and Al;

selecting said first hard material coating for said first type of cutting tool to have a content of said at least two metal elements which is at most 2at% different from a content of said at least two metal elements in said second hard material coating; and

selecting said first hard material coating for said second type of cutting tool to have a content of said at least two metal elements to be different from the content of said at least two metal elements of said second hard material coating by more than 2at%.

58. The method of claim 57, further comprising the step of depositing at least as a part of said hard material coatings a (Ti,Al)N coating on said tool body of both tool types.

59. The method of claim 58, further comprising the step of providing an intermediate layer between said tool body and said hard material coatings of both tool types.

60. The method of claim 57, further comprising the step of depositing said hard material coatings by means of arc evaporation.

61. The method of claim 57, further comprising the step of forming said first hard material coating to have a content of said at least two metal elements that is different from said content of said metal elements in said second hard material coating by at most 2at% by establishing a ratio of a bias voltage applied to said tool body of both tool types during said coating process with respect to an electric reference potential for a plasma discharge of said plasma vacuum coating process with respect to partial pressure of a reactive gas in a process atmosphere of said plasma vacuum coating process to be: $1 \times 10^3 \leq U_{bias} / P_{reactive} \leq 4 \times 10^3$

wherein voltage unit is volt and pressure unit is mbar, and wherein U_{bias} stands for said bias voltage and $P_{reactive}$ stands for said partial pressure.

62. The method of claim 61, including selecting ground potential as said electric reference potential.

63. The method of claim 57, including selecting said first hard material coating to have a content of said at least two metal elements at most 2at% different from said content of said metal elements in said second hard material coating for tool bodies of the first type of cutting tool comprising one of: drills, roughing milling cutters, peripheral milling cutters, tools for hobbing machines or turning tools.

64. The method of claim 57, further comprising the step of applying said first hard material coating to have a content of said at least two metal elements to be different from said content of said at least two metal elements of said second hard material coating by more than 2at% for tool bodies of the first type of cutting tool comprising one of: front-end milling cutters or ball-end milling cutters.

65. The method of claim 57, further comprising the step of applying said first hard material coating with a content of said at least two metal elements to be different by at most 2at% with respect to said content of said at least two metal elements of said second hard material coating for tool bodies of the first type of cutting tool for cutting with a larger cross-sectional area of cut at a lower cutting rate; and applying said first hard material

coating with a content of said at least two metal elements to be different by more than 2at% with respect to the content of said at least two metal elements in said second hard material coating for tool bodies for the second type of cutting tool for cutting with smaller cross-sectional area of cut at a larger cutting rate.

66. The method of claim 57, wherein the tool body for the first type of cutting tool is for working quenched steels, highly alloyed steels, stainless steels or non-ferrous metals.

67. The method of claim 57, further comprising the step of applying said first hard material coating to have a content of said at least two metal elements to be different from said content of said at least two metal elements in said second hard material coating by at most 2at% for tool bodies for the first type of cutting tool having the cutting edge being loaded simultaneously with different cutting speeds relative to a worked workpiece.

68. The method of claim 67, wherein the first type of cutting tool is a drill where minimum cutting speed occurs at a tip of the drill and higher cutting speed occurs at a circumference of the drill.

69. The method of claim 57, wherein the tool body of the second type of cutting tool is for a tool for hard chipping.

70. The method of claim 57, wherein said first and second hard material coatings comprise at least one (Ti,Al)N layer.

71. The method of claim 57, including selecting said first hard material coating to have a content of said at least two metal elements which is at most 1at% different from the content of said at least two metal elements in said second hard material coating, for the first type of cutting tool for higher adhesive strength of the first hard material coating than hardness of said first hard material.

72. The method of claim 71, wherein a content of Al in the material composition of said first hard material coating varies by less than 1at% with respect to the content of said Al in said second hard material coating foe the first type of cutting tool for higher adhesive strength of the first hard material coating than hardness of said first hard material coating, and further selecting the content of aluminum in the material composition of said first hard material coating to be different from the content of said Al of said second hard material coating by more than 2at% for the second type of cutting tool for higher hardness of said first hard material coating than adhesive strength of said first hard material coating.--